

RESTORATION PATH CALCULATION IN MESH NETWORKS**ABSTRACT OF THE DISCLOSURE**

A method for determining a restoration path corresponding to a primary path for a new service in a mesh network involves (1) generating path costs for candidate restoration paths for the new service, and (2) selecting, for the new service, the restoration path with the lowest path cost, where generating the path cost involves (a) determining, for each link Li in the candidate restoration path, a set $B-Li-set$ of links protected by Li (b) determining, for each link Li , a set $I-Li-set$ of links in the set $B-Li-set$ that are also in the primary path (c) calculating, for each link Li , a link cost based on the set $B-Li-set$ and the set $I-Li-set$, and (d) calculating the path cost based on a sum of the link costs. In some embodiments, the method includes an efficient scheme for representing, disseminating, storing, and updating sharing information in an OSPF-TE protocol context.